

CLAIMS:

What is claimed is:

1. A zirconium based alloy also containing, by weight, 200 to 700 ppm in total firstly of iron and  
5 secondly at least one of the elements selected from the group consisting of: chromium and vanadium, 0.8% to 1.3% by weight of niobium, 1100 to 1700 ppm of oxygen, less than 100 ppm of carbon, 10 to 35 ppm of sulfur and less than 50 ppm of silicon, and tin content 100 ppm or less in weight.
- 10 2. Sheathing tube for a nuclear fuel rod or guide tube for a nuclear fuel assembly, made from a zirconium based alloy also containing, by weight, 200 to 700 ppm in total firstly of iron and secondly at least one of the elements selected from the group consisting of: chromium and vanadium , 0.8% to 1.3% by weight of niobium, tin content 100 ppm or less, 1100 to 1700 ppm of oxygen, less than 100 ppm of carbon, 10 to 35 ppm of sulfur and less than 50 ppm of silicon, in the  
15 re-crystallized state, at least the greater part of the iron being in the form  $Zr(Nb,Fe,Cr)_2$  or  $Zr(Nb,Fe,V)_2$  and in which the intermetallic compounds are of a size not exceeding 200 nm.
3. A sheet of alloy as claimed in claim 1.